

CONSTRUCTION VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Date 3/11/10

Contract ID 090925-703

Job No. J7P0863

County Vernon

Route 71

Original Bid Cost \$271,194.15

Contractor APAC-Missouri, Inc.

By Tyson Collins

Designed By APAC-Missouri, Inc.

Phone 417-868-6700

VECP - 10 - 51

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

Proposed Change in Pavement

This Value Engineering Proposal is to alter the existing contract/plans and eliminate full depth A-2 shoulder replacement. The original design calls for full depth replacement for A-2 shoulders from station 747+95.00 to 766+04.13 on the north and south bound lanes. By eliminating excavation in this area, APAC will mill 2" below existing grade and place 2" BP-1 on existing material to match flush to existing Rt. 71 pavement (see attached typical section). In addition, the need for sub grade preparation and base rock would be eliminated in this area. This proposal also eliminates striping and rumble strips for this project, because we are not removing pavement on existing Rt. 71. There will be 62.6 SY of A-2 shoulder under the proposed Type C Barrier wall that will need to be constructed. APAC is proposing to change the bit base to BP-1 for the small quantity. A significant quantity change has increased the price of the A-2 shoulder. APAC is also proposing to lay the A-2 shoulder on dirt, eliminating all base rock. The advantage of the change is to provide MODOT with another alternative other than removing structural pavement and creating edge drop offs. This operation would also eliminate the need of leaving a lane drop up on Rt. 71 for several days during construction of the median creating a much safer environment for the traveling public and would also save Missouri tax payer dollars. Savings will be split 50%/50% (MODOT/APAC) in accordance with Value Engineering Specifications.

All pavement marking and rumble strips should be completed on current contract J7P0824C that overlays Rt. 71 in this section later this year. By doing so MoDOT would not be placing rumble strips and striping on the same section in the same year. APAC will not be responsible for pavement marking or rumble strips on this contract, J7P0863. On current contract J7P0824C the contractor should overlay two feet onto the new median BP-1 and taper to zero or MoDOT shall propose another transition (see attached typical section).

Note: No engineering fees were included in the above proposal. We are requesting that if any engineering is required, MoDOT perform the engineering at no cost to APAC-Missouri, Inc for this proposal.

The estimated net savings is \$63,700.80. See attached sheet showing detailed breakdowns of contract items.

2. Estimate of reduction in construction costs.



APAC - Missouri, Inc. • Missouri Division • P.O. Box 1117 • Columbia, Missouri 65205 • (573) 449-0886 • Fax (573) 449-7966

Springfield Branch Office

P.O. Box 1187
Springfield, Missouri 65801
(417) 868-6700 • Fax (417) 868-6785

March 11, 2010

MODOT Dist. #7
Attn: Randy Aulbur, R.E.
600 West Outer Road
Nevada, MO 64772

Re: JOB NO: J7P0863
Rt. 71, Vernon County

Dear Randy,

Attached are four copies of our proposal for eliminating full depth A-2 shoulder replacement on the above referenced project. We are submitting this proposal under section 104.6 of the Missouri Standard Specifications for Highway Construction. We feel that the proposal meets the Value Engineering requirements because it reduces the overall cost of the project for the taxpayers. As noted in our proposal, no engineering costs have been added to our proposal. I am requesting a response from MoDOT, in writing, by no later than March 16, 2010.

Please advise with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Tyson Collins", is written over a horizontal line.

Tyson Collins
Project Engineer

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

APAC-Missouri, Inc. foresees no additional costs for MODOT.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

Detailed breakdowns are attached
(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

March 16, 2010

(date)

No change to completion date or schedule.

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

N/A

(date and/or dates)

Additional Comments:

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments:

I am in favor of this proposal with the stipulation that during the removal process, a solid foundation is maintained prior to the placement of the 2" overlay. If poor conditions exist within the limits of the original proposed A2-shoulder, additional depth of BP-1 may be required.

[Signature]

Submitted By Resident Engineer

3-11-10

Date

Comments: *I concur*

- ☒ Approval
Recommended
☐ Rejection
Recommended

Becky Balts

District Engineer

3-11-10

Date

Comments:

APPROVED PER DISTRICT RECOMMENDATION

- ☒ Approval
☐ Rejection

David D. Cooper (DGA)

State Construction and Materials Engineer

5-18-10

Date

Distribution: Resident Engineer, Project Manager, District Operations Engineer, State Construction and Materials Engineer
*Value Engineering Administrator - *MoDOT, P.O. Box 270, Jefferson City, MO 65102

mill down to 12" - 12"

6. MEDIAN

REMOVE CURB

MILLING LIMITS

VARIABLES

REMOVE CURB

12'

12'

EXISTING
8" TYPE A
WAS DOWEL
EXIST. PI

PROPOSED
2" BP-1
(PG64-22)

PG 76-22)
PG 76-22)
LAY

EXISTING
2" PLANT MIX BIT. BASE COURSE
EXISTING
6" PLANT MIX BIT. PAVEMENT
EXISTING
8" NON-REINF. CONC.
EXISTING
4" TYPE 3 AGGR. BASE

EXISTING
8" NON-
REINF. CONC.

APAC-Missouri Inc.
Rt. 71 Vernon County
J7P0863

Rt. 71

STA. 747+95.00 --> 766+04.13

Current Contract

Item	Description	Quantity	Unit	Unit Price	Total Price
10	Removal of Improvements	1	LS	\$ 43,740.00	\$ 43,740.00
20	Subgrade Compaction (6 Inch Depth)	37	100F	\$ 30.50	\$ 1,128.50
30	Subgrade and Shouldering Class 1	37	100F	\$ 25.40	\$ 939.80
40	Type 1 Aggregate for Base (4 In. Thick)	1638	SY	\$ 4.80	\$ 7,852.80
50	Type A-2 Shoulder Bituminous Pavement PG-64-22 (BP-1)	1636	SY	\$ 25.60	\$ 41,881.60
60	6 In. White High Build Acrylic Waterborne Pavement Marking Paint	270	TN	\$ 63.15	\$ 17,050.50
270	6 In. Yellow High Build Acrylic Waterborne Pavement Marking Paint	1452	LF	\$ 0.95	\$ 1,379.40
440	6 In. Yellow High Build Acrylic Waterborne Pavement Marking Paint	3618	LF	\$ 0.95	\$ 3,437.10
310	Bituminous Shoulder Rumble Strip	50.7	STA	\$ 66.33	\$ 3,362.93
Total					\$ 120,772.63

V.E. Proposal - New Contract Quantity

Item	Description	Quantity	Unit	Unit Price	Total Price
10	Removal of Improvements	1	LS	\$ 30,859.00	\$ 30,859.00
20	Subgrade Compaction (6 Inch Depth)	0	100F	\$ 30.50	\$ -
30	Subgrade and Shouldering Class 1	0	100F	\$ 25.40	\$ -
40	Type 1 Aggregate for Base (4 In. Thick)	0	SY	\$ 4.80	\$ -
50	Type A-2 Shoulder Bituminous Pavement PG-64-22 (BP-1)	0	SY	\$ 25.60	\$ -
50	6 In. White High Build Acrylic Waterborne Pavement Marking Paint	358	TN	\$ 63.15	\$ 22,607.70
270	6 In. Yellow High Build Acrylic Waterborne Pavement Marking Paint	0	LF	\$ 0.95	\$ -
440	6 In. Yellow High Build Acrylic Waterborne Pavement Marking Paint	0	LF	\$ 0.95	\$ -
310	Bituminous Shoulder Rumble Strip	0	STA	\$ 66.33	\$ -
xxxx	Type A-2 Shoulder	62.6	SY	\$ 57.59	\$ 3,605.13
Total					\$ 57,071.83

Net Savings \$ 63,700.80
50/50 Split \$ 31,850.40

Rt. 71

Future Overlay
J7P0824C

Existing Rt. 71

J7P0863 - Mill and
Pave 2" BP-1 to Match
Existing Rt. 71



Contract ID: 090925-703

Fed St/Pr Proj Nbr: J7P0863

Status: Active

Primary PCN: J7P0863

District: 07

OrgCode: 7CG

Funding

Progress Sched:

Variance Pct: .00

Desc: J7P0863 - ROUTE 71 - VERNON COUNTY

- ☐ Federal
☐ State/Province
☒ Both

Time Charges: Completion Date

Bid Days: 388

Bid Amt: \$271,194.15

Contract Type: Construction Project \$500,000 or Less

☐ Fed Oversight

Work Type: SAFETY PROJECTS-SIGNALS, GUARDRIAL, SIGN

☐ Local Oversight

Proposal Fund Type:

Spec Yr: 1996

Unit System: English

Suppl Spec Bk Yr: 1996

Alt ID:

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- ☒ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

_____ Mill and fill existing shoulders in lieu of remove and replace.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

_____ Scan proposal only.
